

Medicine for Managers

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Crohn's Disease

Crohn's Disease, also known as regional enteritis, is a type of inflammatory bowel disease. It classically affects the ileum (small intestine) but can affect any part of the bowel and may also produce a variety of symptoms affecting many other parts of the body. It has features in common with ulcerative colitis but differs in significant and fundamental ways.

The disease was described by Crohn, a New York gastroenterologist, in 1932 although it had already been identified by Leśniowski, a Polish surgeon nearly 30 years earlier. Fortunately for most of us, Crohn's disease is easier to spell!

Abdominal pain may be an initial and characteristic symptom of Crohn's disease, often accompanied by diarrhoea which may be bloody. The diarrhoea is typically of large volume and watery. In its more severe form the patient may experience 15-20 bowel movements a day, also having to get up at night.

Blood mixed with the diarrhoea is more common when the disease also involves the colon but overall rectal bleeding is unusual. Other bowel symptoms may include bloating and flatulence. If the disease involves the lowest end of the bowel, the patient may suffer from tenesmus (the constant feeling of wanting the bowels open together with crampy lower abdominal pain), soreness and

irritation of the anus and the development of abscesses and fistulae (connections between two body cavities, e.g. the rectum and the vagina, or between a body cavity and the surface, e.g. between rectum and skin). Upper intestinal symptoms may include oral ulceration, vomiting, upper abdominal pain and dyspepsia.

The classic changes in the small bowel, ileitis, result in inflammation with scarring and the development of fibrous bands which encircle the intestine and lead to obstruction in many cases.

General symptoms include malaise, weight loss and persistent low-grade fever and may be a marker of severe disease, though surprisingly they are occasionally the only symptom. The weight loss may also result from loss of appetite.

The joints may be affected producing an inflammatory arthritis which can affect the hips,

knees and the small joints of the hands and feet.

The eyes may become inflamed and the inner part of the eye may be affected (uveitis) or the white of the outer eye (episcleritis). Skin changes may be observed and a classic abnormality is erythema nodosum (which may appear as red, often discoid, patches on the shins).

Other features include anaemia, which itself may cause fatigue and pallor, nerve and muscle symptoms such as muscle weakness, tingling and numbness in the fingers and toes, headache and depression.

Crohn's disease has an prevalence in the UK of around 50-100/100,000 with an annual incidence of about 5-10/100,000. The disease varies in its incidence throughout the world being more common in northern Europe than in southern Europe and very rare in South America and Africa. It most commonly affects people in the third decade of life but there is a second smaller peak in patients in their 60s. About 25-30% of patients have disease confined to the small bowel, 20-25% have disease confined to the colon and about half have disease affecting the large and small bowel.

The cause of Crohn's disease is unclear but genetic configurations appear to make susceptible individuals more vulnerable to particular environmental trigger effects. Such triggers include being in a higher socio-economic group, the use of non-steroidal anti-inflammatory drugs, smoking (which doubles the risk of the disease and relapses of which are

reduced by 65% following cessation), stress (which seems to be implicated in lots of things) and women taking the oral contraceptive pill (which may increase the risk of Crohn's by 50%).

The disease is likely to be more severe if it starts at a younger age, is spread through the ileum and colon and is sufficiently severe to need steroids at the outset.

Diagnosis is made initially by standard investigations including blood tests and stool examination. Sometimes the diagnosis is made more difficult in those patients whose only symptoms are general rather than relating to the bowel. For a definitive diagnosis colonoscopy is necessary with biopsy of the last part of the small bowel.

All smokers are told to give up but, in Crohn's disease, it is very important because relapses drop dramatically following cessation of smoking. Steroids are very useful for short-term control of symptoms because of their immunosuppressant and anti-inflammatory effects.

Drugs such as azathioprine can form the mainstay of treatment but about one in five patients treated with the drug cannot tolerate it. For them the weekly use of methotrexate is an effective alternative.

For those patients who do not do well with any of the alternatives the newer TNF (Tumour Necrosis Factor) drugs, such as infliximab and adalimumab may prove to be very useful. If the person suffers from extensive colonic disease, then the treatment is as for ulcerative colitis.

Antibiotics are helpful in those patients who have bowel abscesses.

Some patients with extensive disease and severe constitutional effects may need parenteral feeding until the disease is brought under control.

Crohn's disease and Ulcerative Colitis have similarities and differences. The table below highlights some of features which differentiate the two diseases.

Ulcerative Colitis	Crohn's Disease
Defaecation mucus-like with blood	May be like porridge
Fever indicates severe disease	Fever common
Weight loss uncommon	Weight loss common
Peak incidence between 15 and 25 years of age	Usual onset is in the third decade
Lower risk with smoking	Higher risk with smoking
Seldom affects the ileum	Commonly affects the ileum
100% affect the colon	About 75% affect the colon
Continuous areas of inflammation	Patchy areas of inflammation
Continuous ulceration	Discrete, often S-shaped ulcers
Tends to affect lining mucosa only	Often affects whole thickness of bowel wall
Antibiotics generally not useful	Antibiotics effective long-term
Usually cured by surgery	Often recurs following removal of diseased area

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